

**IN THE CLAIMS**

**Claim 1. (original)** A method for binding an exogenous molecule to a binding site, wherein the binding site is located within a region of interest in cellular chromatin, wherein the method comprises:

- (a) identifying an accessible region within the region of interest;
- (b) identifying a target site for the exogenous molecule within the accessible region; and
- (c) introducing the exogenous molecule into the cell;

whereby the exogenous molecule binds to the binding site.

**Claim 2. (original)** The method according to claim 1 wherein the cellular chromatin is in a chromosome.

**Claim 3. (original)** The method according to claim 1 or claim 2 wherein the accessible region is a nuclease hypersensitive region.

**Claims 4-5. (previously canceled)**

**Claim 6. (original)** The method according to any one of claims 1 to 5, wherein the exogenous molecule is a protein.

**Claim 7. (original)** The method according to claim 6 wherein the protein performs a process selected from the group consisting of replication, recombination, integration, DNA repair, transcriptional regulation and chromatin remodeling.

**Claim 8. (original)** The method according to claim 6 wherein the protein is used for detection of a target sequence.

**Claim 9. (original)** The method according to claim 7, wherein the protein is a transcription factor.

**Claim 10. (original)** The method according to claim 9, wherein the transcription factor is a zinc finger protein (ZFP).

**Claim 11. (original)** The method according to claim 6 wherein the protein is encoded by an exogenous nucleic acid introduced into the cell.

**Claim 12. (original)** The method according to any one of claims 1 to 11, wherein the cell is a eukaryotic cell.

**Claim 13. (original)** The method according to claim 12, wherein the cell is a plant cell.

**Claim 14. (original)** The method according to claim 12, wherein the cell is a mammalian cell.

**Claim 15. (original)** The method according to claim 14, wherein the cell is a human cell.

**Claim 16. (original)** The method according to any one of claims 1 to 15, wherein the binding site is in a coding region.

**Claim 17. (original)** The method according to any one of claims 1 to 15, wherein the binding site is in a non-coding region.

**Claim 18. (currently amended)** The method according to claim 10, wherein the binding site comprises the sequence 5'-NNx aNy bNz c-3' (SEQ ID NO: 38), wherein

each of (x,a), (y,b) and (z,c) is (N,N) or (G,K); and

at least one of (x,a), (y,b) and (z,c) is (G,K); wherein N is any nucleotide and K is either G or T.

**Claim 19. (previously canceled)**

**Claim 20. (original)** The method according to claim 11 wherein the nucleic acid is introduced into the cell by a method selected from the group consisting of lipid-mediated gene

transfer, electroporation, direct injection, particle bombardment, calcium phosphate co-precipitation, DEAE-dextran mediated transfer, and viral vector-mediated transfer.

**Claim 21. (previously amended)** A method for binding a ZFP transcription factor to a binding site, wherein the binding site is located within a region of interest in cellular chromatin, wherein the method comprises:

- (a) identifying an accessible region within the region of interest;
- (b) identifying a zinc finger protein (ZFP) binding sequence within the accessible region;
- (c) designing or selecting a ZFP to bind to the binding sequence; and
- (d) introducing the ZFP into the cell;

whereby the ZFP binds to the binding site.

**Claim 22. (original)** The method according to claim 21 wherein the ZFP is introduced into the cell by introducing a DNA construct encoding the ZFP into the cell under conditions in which the construct expresses the ZFP.

**Claim 23. (original)** The method according to claim 21 or claim 22 wherein the cellular chromatin is in a chromosome.

**Claim 24. (original)** The method according to any one of claims 21 to 23 wherein the accessible region is a nuclease hypersensitive region.

**Claims 25-26. (previously canceled)**

**Claim 27. (currently amended)** The method according to any one of claims 21 to 26, wherein the binding site comprises the sequence 5'-NNx aNy bNz c-3' (SEQ ID NO: 38), wherein

each of (x,a), (y,b) and (z,c) is (N,N) or (G,K); and

at least one of (x,a), (y,b) and (z,c) is (G,K); wherein N is any nucleotide and K is either G or T.

**Claims 28-56. (previously canceled)**

**Claim 57. (previously added)** A complex between an exogenous molecule and a binding site in cellular chromatin, wherein the binding site is in an accessible region of cellular chromatin.

**Claim 58. (previously added)** The complex of claim 57, wherein the exogenous molecule is a nucleic acid.

**Claim 59. (previously added)** The complex of claim 58, wherein the nucleic acid is a triplex-forming nucleic acid.

**Claim 60. (previously added)** The complex of claim 57, wherein the exogenous molecule binds in the minor groove of double-stranded DNA.

**Claim 61. (previously added)** The complex of claim 57, wherein the exogenous molecule is a small molecule therapeutic.

**Claim 62. (previously added)** The complex of claim 57, wherein the exogenous molecule is a protein.

**Claim 63. (previously added)** The complex of claim 62, wherein the protein is a transcription factor.

**Claim 64. (previously added)** The complex of claim 63, wherein the transcription factor is a zinc finger protein (ZFP).

**Claim 65. (previously added)** The complex of claim 57, wherein the accessible region is a nuclease hypersensitive region.

**Claim 66. (previously added)** A cell comprising the complex of claim 57.

**Claim 67. (previously added)** The cell of claim 66, wherein the exogenous molecule is a protein.

**Claim 68. (previously added)** The cell of claim 67, wherein the protein is encoded by a nucleic acid introduced into the cell.

**Claim 69. (previously added)** The cell of claim 66, wherein the cell is a plant cell.

**Claim 70. (previously added)** The cell of claim 66, wherein the cell is an animal cell.

**Claim 71. (previously added)** The cell of claim 66, wherein the cell is a human cell.

**Claim 72. (previously added)** A method for modulating the transcription of a gene in a cell, wherein the gene is present in a chromosome of the cell, by binding an exogenous molecule to a binding site in the chromosome, wherein the binding site is in an accessible region of cellular chromatin.

**Claim 73. (previously added)** The method of claim 72, wherein modulation comprises activation of transcription.

**Claim 74. (previously added)** The method of claim 72, wherein modulation comprises repression of transcription.

**Claim 75. (previously added)** The method of claim 72, wherein the exogenous molecule is a nucleic acid.

**Claim 76. (previously added)** The method of claim 75, wherein the nucleic acid is a triplex-forming nucleic acid.

**Claim 77. (previously added)** The method of claim 72, wherein the exogenous molecule binds in the minor groove of double-stranded DNA.

**Claim 78. (previously added)** The method of claim 72, wherein the exogenous molecule is a small molecule therapeutic.

**Claim 79. (previously added)** The method of claim 72, wherein the exogenous molecule is a protein.

**Claim 80. (previously added)** The method of claim 79, wherein the protein is a transcription factor.

**Claim 81. (previously added)** The method of claim 80, wherein the transcription factor is a zinc finger protein (ZFP).

**Claim 82. (previously added)** The method of claim 72, wherein the accessible region is a nuclease hypersensitive region.

**Claim 83. (previously added)** The method of claim 79, wherein the protein is encoded by a nucleic acid introduced into the cell.

**Claim 84. (previously added)** The method of claim 72, wherein the cell is a plant cell.

**Claim 85. (previously added)** The method of claim 72, wherein the cell is an animal cell.

**Claim 86. (previously added)** The method of claim 72, wherein the cell is a human cell.